

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1. - 6. (Canceled)

Claim 7. (Currently Amended) A bonded body composed of a bonding member and a member to be bonded, which are used in a device for rotating the bonding member on which rotary disks are stacked, with [[and]] the member to be bonded serving as a rotary shaft, wherein-in integral bonding:

~~wherein~~ the bonding member has a bonding hole into which a fitting portion of the member to be bonded ~~the rotating shaft~~ is insertable, with ~~preliminary~~ a first bonding marks mark, in the form of a first annular depression around the bonding hole, being formed on an axial face of the bonding member in a vicinity of the bonding hole, and ~~plastic~~ a second bonding marks mark, in the form of a second annular depression around the bonding hole being formed at the bottom of the ~~preliminary~~ first bonding marks; ~~whereby~~

formation of the ~~preliminary~~ first bonding marks ~~mark~~ causes a flow of and bonding projections flows the material of the bonding member in the vicinity of the bonding hole towards the fitting portion of the member to be bonded, rotating shaft to integrate the ~~rotating shaft~~ member to be bonded and the bonding member, a portion of the bonding member ~~[[,]]~~ in the vicinity of the fitting portion of the member to be bonded, ~~of the bonding member is being~~ pressurized at a load that is in excess of an elastic limit of the material of the bonding member, for generating a stress ~~enough~~ that is sufficient to plastically deform the material of the bonding member, to effect ~~preliminarily~~ preliminary plastic bonding; and

~~further the portion, in the vicinity of the fitting portion of the member to be bonded, of the bonding member is pressurized at a load in excess of an elastic limit of the material of the bonding member; and~~

in formation of the second bonding mark, a compression force in an axial direction of the ~~to be bonded member~~ to be bonded is generated at applied to the portion of the bonding member in the vicinity of the ~~fitting portion of the bonding member, and then, hole, such that~~ part of the material of the ~~fitting portion in excess~~ bonding member in the vicinity of the elastic limit bonding hole

is allowed to plastic-flow ~~in such a manner~~ so as to fill a ~~clearance~~ groove defined between the member to be bonded and the bonding member;

whereby the bonding member and the member to be bonded are tightly integrated with each other, with the first and second ~~and the preliminary~~ ~~and plastic~~ bonding marks ~~remain~~ remaining on the completed bonded body.

Claim 8. (Currently Amended) ~~[[A]]~~ The bonded body ~~of a bonding member and a member to be bonded~~ as claimed in Claim 7, wherein said groove is an annular groove ~~[[is]]~~ provided at the fitting portion of the ~~to be bonded member to be bonded to the bonding member.~~

Claim 9. (Currently Amended) ~~[[A]]~~ The bonded body ~~of a bonding member and a member to be bonded~~ as claimed in Claim 8, wherein a knurl is formed ~~[[at]]~~ as the annular groove ~~formed~~ at the fitting portion of the ~~to be bonded member to be bonded to the bonding member.~~

Claim 10. (Currently Amended) A mechanical apparatus provided with a bonded body composed of a bonding member and a member to be bonded, which are used in a device for rotating the bonding member on which rotary disks are

stacked, with the ~~and the to-be-bonded~~ member to be bonded serving as a rotary shaft ~~in integral bonding~~; wherein

an axial face portion of the bonding member [[,]] in the vicinity of [[the]] a fitting portion of the ~~to-be-bonded~~ member to be bonded, ~~of the bonding member~~ is pressed to provide a plastically deformed part, which is in the vicinity of the fitting portion of the ~~to-be-bonded~~ member to be bonded, with preliminary a first bonding marks mark in the form of a first annular depression being formed in [[a]] the vicinity of a bonding hole; and

said axial face portion is further pressed, to effect plastic-flow bonding with plastic a second bonding member mark being formed in the form of a second annular depression at a bottom of the ~~preliminary~~ first bonding marks such that the ~~preliminary~~ first and plastic second bonding marks remain.

Claims 11. - 20. (Canceled)

Claim 21. (Currently Amended) An integrated bonded body, comprising:

a rotating shaft; and

a bonding member bondable to said rotating shaft; [[,]] wherein,

the bonding member has a bonding hole into which the rotating shaft is insertable;

~~, with preliminary~~ a first bonding marks being mark, in the form of a first annular depression around the bonding hole, is formed on an axial face of the bonding member in a vicinity of the bonding hole; , and plastic

a second bonding marks being mark, in the form of a second annular depression around the bonding hole, is formed on [[the]] an axial face at the bottom of the preliminary first bonding marks whereby mark;

formation of the ~~preliminary first bonding marks and bonding projections~~ mark flows the material of the bonding member in the vicinity of the bonding hole towards the rotating shaft to integrate the rotating shaft and the bonding member; and , wherein

the ~~preliminary first~~ and plastic second bonding marks are present in the integrated bonded body.

Claim 22. (Currently Amended) The integrated bonded body according to Claim 21, wherein:

an annular groove is formed around the rotating shaft at ~~[[the]]~~ a bonding portion thereof; ~~[[,]]~~ and

during formation of the first and second bonding marks, material of the bonding member in a vicinity of the bonding ~~[[hold]]~~ hole effects plastic flow towards the rotating shaft.

Claim 23. (Currently Amended) The integrated bonded body according to Claim 22, wherein the rotating shaft ~~is provided with~~ has a plurality of said annular grooves.

Claim 24. (Currently Amended) The integrated bonded body according to Claim 23, wherein the plurality of annular grooves constitutes two grooves.

Claim 25. (Previously Presented) The integrated bonded body according to Claim 22, wherein a cross sectional area of the grooves is of triangular shape.

Claim 26. (Previously Presented) The integrated bonded body according to Claim 22, wherein a compression stress is exerted on the annular groove, and a stress is exerted on a portion of the rotating shaft other than the annular groove.

Claim 27. (Previously Presented) The integrated bonded body according to Claim 22, wherein the bonding member has a deformation resistance smaller than that of the rotating shaft.

Claim 28. (Previously Presented) The integrated bonded body according to Claim 22, wherein the annular groove is provided with a knurl.

Claim 29. (Currently Amended) An integrated bonded body, comprising:

a rotating shaft; and

a bonding member bondable to said rotating shaft; [[,]] wherein,

the bonding member has a bonding hole into which the rotating shaft is insertable; [[,]]

[[with]] an annular ~~preliminary first~~ bonding ~~marks being~~ mark is formed on an axial face of the bonding member around the bonding hole; [[, and]]

~~Plastic~~ a second bonding ~~marks being~~ mark is formed around the bonding hole, on [[the]] an axial face at the bottom of the preliminary bonding marks; ~~whereby~~

formation of the ~~preliminary first~~ bonding ~~marks and bonding projections~~ mark flows the material of the bonding member in a vicinity of the bonding hole towards the rotating shaft to integrate the rotating shaft and the bonding member; and ~~such that~~

the ~~preliminary first~~ and ~~plastic~~ second bonding marks remain in the integrated bonded body.

Claim 30. (Currently Amended) A mechanical apparatus provided with an integrated bonded body, comprising:

a rotating shaft; and

a bonding member bondable to said rotating shaft; [[,]] wherein

the bonding member has a bonding hole into which the rotating shaft is insertable; ~~[[with]]~~

~~preliminary~~ a first bonding ~~marks being~~ mark is formed in a vicinity of the bonding hole; ~~plastic~~

a second bonding ~~marks~~ mark is formed at the bottom of the preliminary bonding marks; ~~whereby the~~

formation of the ~~preliminary~~ first bonding ~~marks and the bonding~~ projection mark flows the material of the bonding member in the vicinity of the bonding hole towards the rotating shaft to integrate the rotating shaft and the bonding member; and ~~such that~~

the ~~preliminary and plastic~~ first and second bonding marks remain in the integrated bonding body.

Claim 31. (New) A bonded body comprising:

a first member; and

a second member; wherein,

said first member comprises a rotatable hub for supporting a plurality of rotating disks;

said second member comprises a shaft for rotating said first member, and is bonded to said first member by plastic bonding, wherein,

said first member has a bonding hole into which a fitting portion of the second member is insertable, with a gap between the second member and sides of the bonding hole;

a first bonding mark in the form of a first annular depression having a first diameter is formed around the bonding hole on an axial face of the first member;

a second bonding mark in the form of a second annular depression having a second diameter that is smaller than said first diameter, is formed around the bonding hole, in a bottom surface of said first bonding mark;

formation of the first bonding mark is performed by applying to the first member in the vicinity of the bonding hole, a stress that is sufficient to

plastically deform the material of the first member, causing a plastic flow of said material of the first member in the vicinity of the bonding hole toward the fitting portion of the second bonding member, which plastic flow fills said gap along an entire axial extent thereof, forming a preliminary bond between said first and second members;

formation of said second bonding mark is performed by applying to said first member, at an inner portion of a bottom surface of said first bonding mark, a stress that is sufficient to cause a portion of the material of the first bonding member in the vicinity of the bonding hole to plastic flow, so as to fill a groove formed in the fitting portion of the second member, between the first and second members; and

whereby the first and second members are tightly integrated with each other to form the bonded body, with the first and second bonding marks remaining on the bonded body.